

ABSTRACT

The invention relates to a method for butt welding metal sheets (1, 2), preferably sheet metal strips or blanks of differing thicknesses by the relative displacement of a laser beam or electron beam in relation to the metal sheets (1, 2), along the line of contact of said sheets (1, 2) or the line of the welding seam that is to be produced, with the aid of tension rollers (4, 5, 10) that are located in pairs at a distance from one another above and below the sheets (1, 2) in the vicinity of the welding seam. The tension rollers (10) that are located above the sheets (1, 2) roll off the latter (1, 2) in a height-adjustable and/or sprung manner. The height of the tension rollers (4, 5) that are located below the sheets (1, 2) on at least one side of the welding seam is adjusted.